METHOD OF DEFINING AN EXCHANGE-TRADED FUND AND COMPUTER PRODUCT FOR GENERATING REAL-TIME FUND INFORMATION

CROSS-REFERENCE TO RELATED APPLICATION

[0001]　This application claims the benefit under 35 U.S.C. § 119(e) of my provisional application No. 60/409,648 filed September 10, 2002, provisional application No. 60/474,047 filed May 29, 2003, and provisional application No. 60/474,837 filed May 30, 2003.

BACKGROUND OF THE INVENTION

[0002]　Field of the Invention

[0003]　The invention lies in the financial and business method fields. More specifically, the invention relates to a novel type of exchange-traded fund (ETF) and to related computer and software products.

[0004]　Description of the Related Art

[0005]　Exchange-traded funds (ETFs) have recently become a popular trading vehicle for investors. These funds are similar to index mutual funds, i.e., mutual funds that are tied to respective indices, but they more closely resemble stocks. An exchange-traded fund is a collection of securities that may be traded on an exchange. Holding shares in an ETF represent ownership in an underlying portfolio of securities tracking a given stock exchange or other market index. Since the ETFs

are not bought and sold through a fund company – they are traded through brokers or brokerage accounts – they can bought on margin and they can also be sold short, similar to regular stocks.

[0006]   Some of the most popular ETFs include DIAMONDs (tracking the Dow Jones Industrial Average), FITRs (tracking fixed income treasuries), Spiders (tracking several Standard & Poors indices), and VIPERs (tracking several Vanguard index funds). These ETFs have become quite popular for a variety of reasons. For example, they can be traded throughout the trading hours on the exchanges – which is a perceived shortcoming of most mutual funds, which can only be traded after the close of the exchange. Also, the ETFs typically have very low trading overhead, i.e., very small account expenses as compared to the relatively high annual expenses of many of the mutual funds.

[0007]   Neither the currently available exchange-traded funds nor any of the mutual funds or indices track dividend performance of any of the securities. Especially in light of the recent political climate, which appears to point towards the abolition or at least towards a reduction on income tax levied on dividend income, such a trading instrument would be desirable.

SUMMARY OF THE INVENTION

[0008]   It is accordingly an object of the invention to provide a method of defining an exchange-traded fund and a computer and software product for generating real-time fund information, which overcomes the above-mentioned disadvantages of the heretofore-known devices and methods of this general type

and which further improves investor access to securities tied to dividend distributions.

[0009]   With the foregoing and other objects in view there is provided, in accordance with the invention, a method of defining an exchange-traded fund, which comprises:

[0010]   searching for publicly traded securities (e.g., stocks) and a history of dividend yields associated with the respective securities;

[0011]   sorting the securities relative to an amount of the associated dividend yields, and rating the securities based on the associated dividend yields;

[0012]   placing a plurality of the securities into the exchange-traded fund and weighting the individual securities within the exchange-traded fund in accordance with the associated dividend yields; and

[0013]   offering for sale shares in the exchange-traded fund.

[0014]   In accordance with an added feature of the invention, the searching step comprises also searching for a price-earnings ratio associated with the respective securities, and weighting the respective securities in the exchange-traded fund with the price-earnings ratio and the amount of the associated dividend yields. This provides for a better characterization of the stock. That is, if the last dividend distribution was very high, yet the price/earnings ratio is very high as well, the system may flag the security as questionable. If on the other hand, the dividend

yield is high and the PE ratio is quite low, the security may be flagged with a much better rating.

[0015]   In accordance with an additional feature of the invention, the novel method may be incorporated in a computer-readable medium having computer-executable instructions for performing the method. Similarly, there is advantageously provided and computer programmed to perform the novel method.

[0016]   With the above and other objects in view there is also provided, in accordance with the invention, a virtual securities broker for assisting a customer in generating and purchasing a dividend-weighted fund instrument from a merchant, comprising:

[0017]   a database containing customer information with identification and preferences related to the customer;

[0018]   a client system for prompting the customer to select a predefined set of dividend-yielding securities or to input parameters for a new search defining a new set of dividend-yielding securities;

[0019]   a server system programmed to search, via the Internet, a current state of the predefined set of dividend-yielding securities or within the parameters entered in the client system by the customer and to transmit a search result to the client system; and

[0020] a purchase processing system, connected to the server system and adapted to receive a purchase order from the customer via the client system, for the dividend-yielding securities and to fill the purchase order.

[0021] In accordance with a further feature of the invention, the server system is configured to search for stocks including a stock price and a history of dividend distributions, the client system is configured to display to the customer a percentage dividend yield defined by a percentage ratio of past dividend distribution over a given period of time relative to the price of the security.

[0022] In a preferred implementation, the invention belongs into an electronic commerce system having a computer system configured to search for securities, a history of dividend yields associated with the respective securities, and price-earnings ratios associated with the respective securities. In this context, I provide for a method of generating and offering for sale an exchange-traded fund. The method comprises:

[0023] upon receiving an initiation request from a customer, checking a database containing customer information with identification and preferences related to the customer;

[0024] prompting the customer to select a predefined set of dividend-yielding securities or to input parameters for a new search defining a new set of dividend-yielding securities;

[0025]   searching for securities matching the parameters associated with the set of dividend-yielding securities, placing a plurality of the securities into the exchange-traded fund, weighting the individual securities within the exchange-traded fund in accordance with the associated dividend yields, and rating the securities based on an amount of the associated dividend yields; and

[0026]   offering for sale shares in the exchange-traded fund.

[0027]   In accordance with again an added feature of the invention, the system searches for a price-earnings ratio associated with the respective securities, and weights the respective securities in the exchange-traded fund with the price-earnings ratio and the amount of the associated dividend yields. As noted above, the interplay between the PE ratio and the dividend yield provides additional information concerning the stock, and thus adds a level of security to any resulting purchase order.

[0028]   With the above and other objects in view there is also provided, in accordance with the invention, a method of placing an order in a securities-trading system having a server system connected in a network and a client system connected to the server system, which comprises:

[0029]   under control of the client system, prompting a user for input selecting from available securities with a history of dividend distribution;

[0030]   under control of the server system, searching the network for securities

matching the user's search parameters and transmitting search results to the client

system;

[0031]   under control of the client system, displaying the search results to the

user and prompting the user for further action, the further action including further

input for a new search and placing a purchase order for a security or a collection of

securities having a history of dividend distribution satisfying the user's search

parameters.

[0032]   In accordance with again an additional feature of the invention, the user

is prompted for input where the user selects either a predefined set of dividend-

yielding securities or a specific set of parameters for defining a new selection.

[0033]   In accordance with a concomitant feature of the invention, the specific

set of parameters includes a percentage yield defined by a percentage ratio of past

dividend distribution over a given period of time relative to a price of the security

(e.g., 12 months or any other time period).

[0034]   Besides defining the novel security as an exchange traded fund, ETF, it

may also be characterized as a novel financial "index." In commercial settings I

refer to my novel system as DIVIs^{TM} – Dividend Yielding Stocks. While the

invention is explained herein with reference to the various United States exchanges

and indices, such as the NYSE (New York Stock Exchange), AMSE (American

Stock Exchange), S&P 500 (Standard & Poor 500) and NASDAQ (National

Association of Securities Dealers Automated Quotation), it will be readily

understood that other exchanges and indices are included as well. That is, a world index may utilize, by way of example, the Japanese Nikkei, the German DAX, the British FTSE, and the American NYSE. The system allows an investor to select any of the above exchanges or indices which have dividend yielding stocks. The collection is thus a novel exchange-traded funds with different dividend yields.

[0035]   By way of example, an inventor can select a NYSE ETF with common stocks throwing off dividend yields of 2.5% to 10% or 2.5% to 7% or 2.5% and more meaning yields can go as high as the stocks listed on the NYSE or any of the other indices or AMEX exchange. The investor can select an ETF with common stocks throwing off stock dividend yields to meet the investor's risk comfort zone with different categories of dividend yields.

[0036]   The primary advantage of the new exchange-traded fund resides in its adaptability to the investor's goals. For example, the institutional investor may tend to select an ETF composite – such as a composite of two exchanges such as the New York Stock Exchange and the American Stock Exchange and the two indices the S&P 500 and the NASDAQ – the combination forming an exchange traded fund with the best picks from several exchanges and indices. The query may be directed to stock dividend yields of 2.5% to 7% or 2.5% to 10% or 2.5% and more allowing the investor to select their risk comfort zone. The investor can also select two exchanges the NYSE and AMEX combined or two indices the S&P 500 and NASDAQ combined with the same selection of stock dividend yields throwing off the above percentage yielding dividend stocks. Changes and adaptations are very quick. The investor can quickly enter changes to his or her specialized ETFs to

meet the investor's demands and comfort zones. When stocks on the above illustration of exchanges and indices fall in or out of percentage parameters they can be added to or deleted from the given ETF.

[0037]   It will also be understood that investing in high-dividend yielding stocks is a desirable concept even when dividend yields are taxed. In light of the tax code changes proposed by the current administration, the dividend-yielding stocks have become even more desirable.

[0038]   In accordance with a further feature of the invention, the ETFs proposed herein are not limited to a single-tier stock system, i.e, they are not only applicable to common stock, by they apply equally to preferred stock as well as all other classes and forms of stocks throwing off dividend yields. The primary and basic ETF, however, will be a common stock yielding dividend index. The financial dividend index includes all common stocks throwing off dividend yields from the NYSE, AMEX, S&P 500 and NASDAQ separately. The new dividend yielding stock exchange traded funds track the new dividend yielding stock index. Stocks that throw off dividend yields are quickly added to the ETF, and stocks that discontinue dividend yields can be quickly removed from the ETF. In that regard, the ETF resembles an index. A total composite index of the NYSE, AMEX, S&P 500 and NASDAQ can thus be made available and a composite of just the NYSE and AMEX combined exchanges can be made available, as well as a combined index of the S&P 500 and the NASDAQ indices.

[0039]   Other features which are considered as characteristic for the invention are set forth in the appended claims.

[0040]   Although the invention is illustrated and described herein as embodied in a method of defining an exchange-traded fund and a computer and software product for generating real-time fund information, it is nevertheless not intended to be limited to the details shown, since various modifications and structural changes may be made therein without departing from the spirit of the invention and within the scope and range of equivalents of the claims.

[0041]   The construction of the invention, however, together with additional objects and advantages thereof will be best understood from the following description of the specific embodiment when read in connection with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

[0042]   The figure is a flowchart illustrating a sequence of interactions between a computer system and a user.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0043]   Referring now to the sole figure of the drawing in detail, there is illustrated a sequence of operations during which an ETF is defined and offered for purchase. Some of the individual steps may be predefined and the entire process may be automated. In some instances, several variables may be set by the user and the ETF thus created becomes a very adaptable security instrument.

[0044]   Upon first starting the program at a step 100, the user may be queried

at 101 whether he would like to use a preset Divi™ group. On answering yes, the

system displays a list of preset queries at 102. The user then chooses a preset

query from the list.

[0045]   If the answer following the query 101 is in the negative, the system is

initialized to provide all available and applicable security exchanges or indices from

a database at 103. Then the user is prompted for a variety of input parameters

starting at 104. For example, first the user may choose from a list of available

exchanges and indices. In addition, the system provides a variety of combinations

or the user may select individually until he or she requests that the system move to

the next step. That is, in step 104, the user may select a single exchange or a

single index, as well as any available combination.

[0046]   In order to limit the search, the user will be prompted to enter a

minimum percentage yield in step 105. Finally, the entry sequence will be

terminated after the user has entered the type of stock to be considered at 106.

That is, the system may be set to search only for common stock, or for a

combination of common and preferred stock.

[0047]   The program then branches to a step 107, where the results of the

latest query sequence are stored in the database, to be displayed in the list of

DIVIs™ the next time the user calls up step 102. At the same time, the program

branches to step 108, where the query is processed. The results are then displayed

in tabular form in step 109. From there, the user may choose individual stocks, or groups of stocks, for example by marking them and placing them into a virtual shopping cart at 110. The label "Offer/Process Trades" thus refers to a complete software vending and trading system – for instance with the now-conventional shopping cart and checkout verification layout, or with a one-click vending system.

[0048] **Example 1** – New Dividend-Yielding Index

[0049] The first example provides specific keystrokes for a Bloomberg® equity quote query. The query will return items yielding 0.1% or more during the last 12 months, for securities trading on a United States composite of the New York Stock Exchange, the American Stock Exchange, the S&P 500 index, and the NASDAQ index:

a. Type ESRC <GO>

b. Type 21 (Popular Field Template) <GO>

c. TAB and type in the name COMPOSITE 0.1% + DIV <GO>

d. TAB to line number 2 and enter Min closing price of stocks <GO>

e. TAB to line number 7 and enter 0.1 for Min Dividend 12 Month Yield <GO>

f. Type 16 <GO> to filter countries, then 2 <GO> for North America, then 24 <GO> for U.S., and MENU to go back to main search screen

g. Type 17 <GO> to filter exchanges, then 2 <GO> for North America, then 24 <GO> for U.S., then 12 for American and 20 for New York. Hit MENU twice to go back to main search screen

h. Type 18 <GO> to filter indices, then 2 <GO> for North/Latin America, then 25 <GO> for NASDAQ Composite Index, then PAGE FWD once, and type then 17 <GO> for S&P 500 Index.

i. Hit MENU to go back to main search screen **Type 21 <GO> to filter security types, then 1 <GO> for Common/Ordinary, and MENU to go back to main search screen**

j. Type 1 <GO> to run search, then choose 1 <GO> for display results and then type 1 <GO> to output results.

k. On each subsequent day, type ESRC <GO> and then Select Saved Search by typing number the corresponding search for the COMPOSITE 0.1% + DIV search. Then type 21 <GO> to run search again.

[0050]   Running the search on subsequent days will add or delete securities that fit the criteria set in the search.

[0051]   An exemplary output display would contain the necessary information, namely the ticker symbol, the extent of the search (here the two US exchanges and two US indices), the name of the security, the last-quoted price, P/E ratio, and the dividend yield, in percent of the stock price, over a period of the last 12 months.

Ticker	Exchange Code	Short Name	Price	P/E	Dividend yield (%)
RGC	US	REGAL ENTERT AI-A	18.95	17.50	28.32
NL	US	NL INDUSTRIES	17.70	30.00	18.64

ANH	US	ANWORTH MORTGAGE	16.39	8.58	11.59
RJR	US	RJ REYNOLDS TOB	35.59	8.81	10.68
VGR	US	VECTOR GROUP LTD	15.11	NA	10.48
TE	US	TECO ENERGY INC	12.14	7.14	8.98
ALD	US	ALLIED CAP CORP	26.60	15.83	8.61
UIL	US	UIL HLDGS CORP	36.27	14.86	7.94
IDA	US	IDACORP INC	24.32	24.57	7.65
MMA	US	MUNI MTG & EQTY	24.11	16.29	7.36
RGR	US	STURM RUGER 8, CO	11.10	35.81	7.21
GNI	US	GREAT NORTHN IRN	83.40	13.18	7.19
DQE	US	DGE INC	15.23	12.68	8.57
AEP	US	AMERICAN ELECTRI	29.31	10.47	6.48
LYO	US	LYONDELL CHEMICA	14.11	NA	6.38
DUK	US	DUKE ENERGY CORP	17.60	11.28	6.25
KSL	US	KANEB SERVICES	27.30	13.93	6.23
EK	US	EASTMAN KODAK	29.30	11.96	6.14

[0052]   **Example 2** – New Dividend-Yielding Index

[0053]   This example provides a Bloomberg® key stroke sequence that returns equities yielding at least 0.1% for the last 12 months that trade on the New York Stock Exchange.

    a. Type ESRC <GO>

    b. Type 21 (Popular Field Template) <GO>

    c. TAB and type in the name NYSE 0.1% + DIV <GO>

    d. TAB to line number 2 and enter Min closing price of stocks <GO>

e. TAB to line number 7 and enter 0.1 for Min Dividend 12 Month Yield <GO>

f. Type 16 <GO> to filter countries, then 2 <GO> for North America, and then 24 <GO> for U.S. Hit MENU to go back to main search screen

g. Type 17 <GO> to filter exchanges, then 2 <GO> for North America, then 24 <GO> for U.S., and then 20 for New York. Hit MENU twice to go back to main search screen

h. Type 21 <GO> to filter security types, and then 1 <GO> for Common/Ordinary. Hit MENU to go back to main search screen

i. Type 1 <GO> to run search, then choose 1 <GO> for display results and then type 1 <GO> to output results.

j. On each subsequent day, type ESRC <GO> and then Select Saved Search by typing number the corresponding search for the NYSE 0.1% + DIV search. Then type 21 <GO> to run search again.

[0054] The last step adds or deletes securities that fit the criteria set in the search.

[0055] **Example 3** – New Dividend-Yielding Index

[0056] In order to perform the same search with reference to equities trading on the American Stock Exchange, it is only necessary to modify the third line. That is, instead of entering "NYSE 0.1% + DIV", the proper line is "AMEX 0.1% + DIV," and a further change is effected in step g.

[0057]   <u>Example 4</u> – New Dividend-Yielding Index

[0058]   In a further variation, the same search may be performed with reference to equities trading within the S&P 500 index. Here, therefore, the third line (AMEX 0.1% + DIV) is be replaced by "S&P 500 0.1% + DIV" and step g is adapted accordingly.

[0059]   <u>Example 5</u> – New Dividend-Yielding Index

[0060]   Further variations should now be readily understood. For example, the same search may be performed with reference to equities trading within the NASDAQ index. Here, therefore, the third line (S&P 500 0.1% + DIV) is be replaced by "NASDAQ 0.1% + DIV." A further adjustment will be made in step g.

[0061]   <u>Example 6</u> – New Exchange-Traded Fund

[0062]   The following sequence of keystrokes, again on the Bloomberg® system, will provide equities yielding at least 2½% or more for the last 12 months. The search is limited to the New York Stock Exchange:

    a. Type ESRC <GO>

    b. Type 21 (Popular Field Template) <GO>

    c. TAB and type in the name NYSE 2½ + DIV <GO>

    d. TAB to line number 2 and enter Min closing price of stocks <GO>

    e. TAB to line number 7 and enter 2.5 for Min Dividend 12 Month Yield <GO>

f. Type 16 <GO> to filter countries, then 2 <GO> for North America, then 24 <GO> for U.S.. Hit MENU to go back to main search screen

g. Type 17 <GO> to filter exchanges, then 2 <GO> for North America, then 24 <GO> for U.S., and then 20 for New York. Hit MENU twice to go back to main search screen

h. Type 21 <GO> to filter security types, then 1 <GO> for Common/Ordinary, and MENU to go back to main search screen

i. Type 1 <GO> to run search, then choose 1 <GO> for display results and then type 1 <GO> to output results.

j. On each subsequent day, type ESRC <GO> and then Select Saved Search by typing number the corresponding search for NYSE 2½% DIV search. Then type 21 <GO> to run search again.

[0063]   Those of skill in the art will know how to adapt this search for any of the other available exchanges, for different regions, for different securities, for longer or shorter time periods, and for higher or lower dividend percentage yields.

[0064]   For example, an exchange-traded fund that was set to S&P 500, 2.5% to 10%, 12-month dividend history, on Sept. 5, 2003 provided the following results:

S&P500   2 ½ -10% , 106 Securities Found

Ticker	Exchange Code	Short Name	Closing Price Previous Day	P/E	Div.12 Mo. Yld Gross
TE	SP	TECO ENERGY INC	12.14	7.14	8.98
AEP	SP	AMERICAN ELECTRI	29.31	10.47	6.48

DUK	SP	DUKE ENERGY CORP	17.60	11.28	6.25
EK	SP	EASTMAN KODAK	29.30	11.96	6.14
MO	SP	ALTFIA GROUP INC	41.78	9.24	6.13
NI	SP	NISOURCE INC	19.46	11.45	5.96
AEE	SP	AMEREN CORP	43.06	14.31	5.90
DTE	SP	DTE ENERGY CO	35.69	11.86	5.77
UST	SP	UST INC	34.71	11.73	5.65
ED	SP	CONS EDISON INC	39.76	13.71	5.62
SBC	SP	SBC COMMUNICATIO	23.12	11.74	5.43
PGN	SP	PROGRESS ENERGY	41.62	11.37	5.35
TUP	SP	TUPPERWARE CORP	16.56	18.00	5.31
GAS	SP	NICOR INC	35.06	12.05	5.28
PCL	SP	PLUM CREEK TIMBR	26.56	21.95	5.27
CIN	SP	CINERGY CORP	35.35	12.49	5.18
KSE	SP	KEYS PAN CORP	34.55	14.10	5.15
PGL	SP	PEOPLES ENERGY	41.42	14.23	5.07

[0065]   The novel ETF system provided herein lends itself to a modification which may be referred to as Dividend Stock Options (commercially: Divi-Opts[TM]).

[0066]   Some exchange traded funds also have options. One example of a very popular exchange traded fund is the above-mentioned Diamonds. Diamonds track the DOW JONES 30 stocks. Exchange traded funds are tracking stocks in an index. When an investor buys one share of a Diamond he owns a small piece of all the DOW 30 stocks . The investor can buy the one share like a stock or and sell it like a stock and it has similar trading aspects like a stock. The investor can also

buy a Diamond options with puts, calls & strike prices which track the DOW 30 stocks.

[0067]   The dividend stock options are similar in nature. They track all of the dividends yielding stock exchanges and indices as illustrated above. For example-investors can buy put and call dividends stock options for the NYSE, AMEX, S&P 500 or NASDAQ. Investor's can also buy a composite of the above in an option or buy an option for just the NYSE and AMEX combined only or just the S&P 500 and NASDAQ combined for an option investment. Similar to traditional option investing, the investor typically selects a strike price in or out of the money with usually a 30 to 60 to 90 day time value. The novel system may be set up to offer purchasing options at the index price and offering time values with 6 month or 12 month or 18 month periods to make option buying less complicated with more time value. Options can track common stock performance as well as preferred or any other class or form of stock.

[0068]   It follows quite clearly from the foregoing description that the invention disclosed herein is primarily applicable to software processing, whether it be in a distributed system or a self-contained, autonomous system. The primary implementation thus has to do with machines and methods for performing data processing and calculation operations, as well as the processing of financial data. The term "client system" here pertains to a user platform including, at a minimum, a display unit for displaying prompts and information to the customer as well as an input unit allowing the customer to respond to various prompts. The term "server system" pertains to a networked system, a database with the necessary data, and

also to a system that is enabled to process trades for the new dividend-weighted exchange-traded fund.

[0069]   Distribution of the novel process is best effected via computer-readable media. Such media include all kinds of computer memory devices such as floppy disks, high-density disks, hard disk drives, CDs, DVDs, Flash-ROM, non-volatile ROM, RAM, EEPROM (memory cards, memory sticks, etc.) and carrier waves for the transmission of data through wired and wireless systems.